

REMARKS

This is a full and timely response to the outstanding Advisory Office Action mailed October 14, 2005. Reconsideration and allowance of the application and pending claims are respectfully requested.

I. Claim Rejections - 35 U.S.C. § 102(e)

Claims 7, 9-20, 22-29, and 32-37 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Blumenau, et al. ("Blumenau," U.S. Pat. No. 6,665,714). Applicant respectfully traverses this rejection.

It is axiomatic that "[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." *W. L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983). Therefore, every claimed feature of the claimed invention must be represented in the applied reference to constitute a proper rejection under 35 U.S.C. § 102(e).

In the present case, not every feature of the claimed invention is represented in the Blumenau reference. Applicant discusses the Blumenau reference and Applicant's claims in the following.

A. The Blumenau Disclosure

As was described in a previous Response, Blumenau discloses a method and apparatus for determining an identity of a network device. Blunenau, Patent Title. More particularly, Blumenau discloses a data management system for managing access to data. As is described by Blumenau:

The present invention is directed to a data management method and apparatus for managing accesses by multiple devices (e.g., host processors, file servers and the like) to data at a shared resource (e.g., a shared storage system). According to one embodiment, the shared resource selectively services requests from the devices for portions of data at the shared resource in response to configuration data associated with each of the portions of data at the resource.

In one embodiment, data at the shared resource is apportioned into volumes. Configuration data identifies which volumes of data are available for access by each of the devices coupled to the resource (e.g., over a network). *The shared resource includes a filter that selectively forwards a request for servicing depending upon the identity of the device issuing the request and the configuration data associated with the volume to which access is sought. The filter forwards only those requests for volumes that the device has privileges to access.* Requests to volumes for which the device does not have privileges are not serviced.

[Blumenau, column 5, lines 13-31 (emphasis added)]

In view of the above, Blumenau describes a system that controls access of multiple devices to data stored in a shared resource so that each device only can access data to which it is entitled. Although Blumenau determines the identity of the devices in determining what data may be accessed, the Blumenau system is not used to identify or convey the physical proximity of any devices on a network. Indeed, the term “proximity” does not even appear in the Blumenau disclosure.

B. Applicant's Claims

As is noted above, Blumenau fails to teach several of Applicant's claim limitations. Applicant discusses some of those claim limitations in the following.

1. Claims 7 and 9-19

Applicant's claim 7 provides as follows (emphasis added):

7. One or more computer readable media having stored thereon a plurality of instructions that, when executed by one or more processors, causes the one or more processors to perform acts comprising:

identifying one or more devices in a network;

obtaining, for at least one of one or more network switches in the network, *an indication of which port of the network switch a computing device is coupled to*;

obtaining, for each of the one or more identified devices and for the at least one network switch, *an indication of which port of the network switch the identified device is coupled to*; and

determining, for at least one of the one or more identified devices, how physically distant the identified device is to the computing device, wherein the determining is based at least in part on the indication of which port of the network switch the computing device is coupled to and the indication of which ports of the network switch the one or more identified devices are coupled to.

As is noted above, Blumenau is not concerned with determining the proximity of devices connected to a network. Instead, Blumenau is concerned with controlling access of multiple devices to data. Although Blumenau describes mapping of a network to determine which devices are connected to the network using which ports, this simply does not equate to determining the proximity, or physical distance of the devices. In other words, although Blumenau's mapping permits a user to view the overall *connection topology* of a network, that mapping does not indicate the *physical proximity*

of the various devices of the network. This is of course understandable given that proximity is typically not an issue when it comes to data storage. Specifically, unlike a situation in which the user must collect an output from a device (e.g., a printer), a user that is storing data typically does not care if the data is stored proximately (e.g., on a floor on which the user works) or remotely (e.g., on a different floor of a building in which the user works).

In view of the above-described distinctions, the Blumenau reference is deficient in anticipating Applicant's claim 1. For example, Blumenau does not teach "determining, for at least one of the one or more identified devices, how physically distant the identified device is to the computing device". Again, Blumenau's network mapping provides no indication as to physically distant a device is. Instead, such mapping provides an indication of device connectivity.

Furthermore, Blumenau fails to teach Applicant's claimed mechanism for making the proximity determination. In particular, Blumenau does not teach "obtaining . . . an indication of which port of the network switch a computing device is coupled to" and "obtaining . . . an indication of which port of the network switch the identified device is coupled to" such that the proximity determination is "based at least in part on the indication of which port of the network switch the computing device is coupled to and the indication of which ports of the network switch the one or more identified devices are coupled to". There is simply no support for the argument that Blunenau teaches such a process.

Turning to the claims that depend from claim 7, those claims contain additional limitations that are not anticipated by Blumenau. For example, regarding claim 8, Blumenau does not teach that the identified device comprises a "printer". As is noted above, Blumenau is concerned about storage devices, not printers.

Regarding claims 9 and 10, Blumenau does not teach obtaining the indication of which port the computing device or identified device is coupled to “from the network switch”. To the contrary, port information is obtained from the computing devices in the Blumenau system:

Generally, as each device enters the network it queries the network to identify the other devices coupled to the network. Each device that responds to the query returns one or more identifiers for the device. For example, the identifier may include the world wide name (WWN) assigned to the device by the manufacturer of the adapter board using a naming convention. The identifier may also include a source identifier (ID). Both are unique identifiers for the device, however the source identifier is generally a shorter identifier than the WWN. The source identifier may identify the device (e.g., a host processor) and the port of the device that is coupled to the network. Thus, if multiple ports of the particular device are coupled to the network, an identifier may be returned for each port. When the query operation is complete, each of the devices has knowledge of the other devices coupled in the network. Once each device has knowledge of the other devices in the network, this information can be used to exchange data between devices.

[Blumenau, column 6, line 62 to column 7, line 12]

Regarding claims 11 and 12, Blumenau is silent as to “generating . . . a ranking indicating a proximity of the identified device”. First, Blumenau says nothing as to identifying device “proximity”. Furthermore, the term “proximity” is not used to describe the “number of hops, communication time and so on” (see Office Action, page 14).

Finally, regarding claims 15-19, Blumenau does not teach the various forms of “checking” described in these claims used to establish identified device rank. There is simply no support in the Blumenau reference for the limitations described in claims 15-19.

2. Claims 20 and 22-28

Applicant’s claim 20 provides as follows (emphasis added):

20. A method, implemented in a computing device that is part of a network, the method comprising:

detecting one or more network switches in the network;

identifying one or more other devices of a particular type in the network;

obtaining, for each of the identified one or more other devices and for at least one of the one or more network switches, *an indication of which port of the network switch the device is coupled to, wherein the indication is obtained from at least one of the one or more network switches*; and

ranking, based at least in part on the obtained indications as well as which port of the network switch the computing device is coupled to, the one or more other devices in terms of their inferred physical proximity to the computing device.

Regarding claim 20, Blumenau does not teach obtaining an indication of which port of the network switch the device is coupled to “from at least one of the one or more network switches”. Moreover, Blumenau clearly does not teach “ranking . . . the one or more other devices in terms of their inferred physical proximity to the computing device”. Applicant refers back to the discussions of claim 7. Claim 20 and its dependents are allowable over Blumenau for at least these reasons.

The claims that depend from claim 20 contain additional limitations that are not anticipated by Blumenau. For example, regarding claim 21, Blumenau does not teach that the particular type of device comprises a “printer”.

Regarding claim 22, Blumenau does not teach identifying devices “by accessing a list of device identifiers”. Column 6, line 43 to column 7, line 12, identified in the Office Action for support, comprises no such teaching.

Regarding claim 24, Blumenau is silent as to “presenting . . . a ranking of at least one of the one or more other devices”. In particular, the Blumenau system does no “ranking” of devices.

Finally, regarding claims 25-28, Blumenau does not teach the various forms of “checking” described in these claims used to establish identified device rank. There is simply no support in the Blumenau reference for the limitations described in claims 25-28.

3. Claims 29 and 32-37

Independent claim 29 provides as follows (emphasis added):

29. A method, comprising:
discovering network switches in a network;
identifying devices connected to the network;
determining each switch and each port to which the devices are coupled;
determining each switch and each port to which a user computer is coupled; and
ranking the devices based upon their inferred physical proximity to the user computer.

Regarding claim 29, Blumenau does not teach “discovering network switches in a network”, “determining each switch and each port to which the devices are coupled”, “determining each switch and each port to which a user computer is coupled” and “ranking the devices based upon their inferred physical proximity to the user computer”, for reasons described in the foregoing. For at least those reasons, claims 29 and 32-27 are allowable over Blumenau.

Regarding dependent claim 31, Blumenau does not teach “identifying printers” connected to a network.

Regarding dependent claim 32, Blumenau does not teach “consulting a list of network devices”.

Regarding dependent claim 34, Blumenau does not teach “obtaining switch and port information from at least one network switch”.

Regarding dependent claim 35, Blumenau does not teach “obtaining the switch and portion information from a connection table of the at least one network switch”.

Regarding dependent claim 36, Blumenau does not teach “automatically selecting the physically closest device”.

Regarding dependent claim 37, Blumenau does not teach presenting “rankings” to the user.

II. Claim Rejections - 35 U.S.C. § 103(a)

Claims 2, 8, and 21 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Blumenau in view of official notice. Applicant respectfully traverses this rejection.

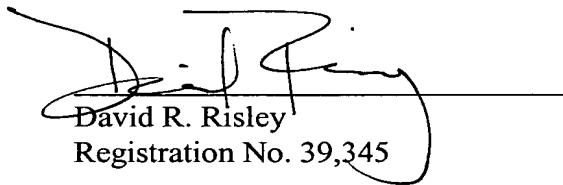
As is identified above, Blumenau does not teach several of the explicit limitations contained in claims 7 and 20. In view of that fact, Applicant respectfully

submits that claims 2, 8, and 21 are allowable over the Blumenau for at least the same reasons that claims 7 and 20 are allowable over Blumenau.

CONCLUSION

Applicant respectfully submits that Applicant's pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,



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